

PATENT CLAIMS

1. Longitudinal guiding element for a motor vehicle seat with
- 5 - two guide elements extended in the seat longitudinal direction and
- a guiding device by means of which the one guide element can be displaced in the seat longitudinal direction relative to the other guide element

10 whereby the guiding device comprises two sliding guides mounted one behind the other in the seat longitudinal direction and each have a guiding slide and a guiding pin guided in the guiding slide,

characterised in that

15 the first sliding guide (3, 4) is formed by a guiding slide (3) provided on the one rail (1) and a guiding pin (4) provided on the other rail (2) and that the second sliding guide (5, 6) is formed by a guiding pin (5) provided on the one rail (1) and a guiding slide (6) provided on the other rail (2).

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2. Longitudinal guiding element for a seat according to claim 1, **characterised in that** the two guide elements (1, 2) are displaceable relative to each other in the seat longitudinal direction (x) between a first and a second end position.

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3. Longitudinal guiding element for a seat according to claim 1 or 2, **characterised in that** the two guiding slides (3, 6) each extend between a front stop (31, 61) in the rail longitudinal direction (x) and a rear stop (32, 62) in the rail longitudinal direction (x) whereby the stops (31, 32); (61, 62) restrict the movement of the guiding pins (4, 5) in the guiding slides (3, 6).

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4. Longitudinal guiding element for a seat according to claim 2 and 3, **characterised in that** in the one end position of the two guide elements (1, 2)
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the guiding pin (4) of the front sliding guide (3, 4) in the rail longitudinal direction (x) bears against the front stop (31) of the guiding slide (3) and the guide pin (5) of the rear sliding guide (5, 6) in the rail longitudinal direction (x) bears against the rear stop (62) of the guiding slide (6).

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5. Longitudinal guiding element for a seat according to claim 2 and 3, **characterised in that** in the other end position of the two guide elements (1, 2) the guiding pin (3) of the front sliding guide (3, 4) in the seat longitudinal direction (x) bears against the rear stop (32) of the guiding slide (3) and the guiding pin (5) of the rear sliding guide (5, 6) in the seat longitudinal direction (x) bears against the front stop (61) of the guiding slide (6).

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6. Longitudinal guiding element for a seat according to claim 4 and 5, **characterised in that** the one end position of the guide elements (1, 2) corresponds to a useful position of the seat in which this is provided for use by a vehicle passenger, and that the other end position of the guide elements (1, 2) corresponds to a displaced position of the seat in which this is not provided to receive a vehicle occupant.

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7. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** the one guide element (1) is provided to receive an upholstery carrier (W) of a motor vehicle seat and that the other guide element (2) is provided for fixing on a structural assembly fixed on the floor of the motor vehicle.

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8. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** the two guide elements (1, 2) are mounted side by side horizontally across the seat longitudinal direction (x) and form an inner and an outer guide element (1, 2).

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9. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** the two guide elements (1, 2) are provided arranged as a pair on the two longitudinal sides of a motor vehicle seat.

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10. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** a locking device (7) is provided for locking the guide device (3, 4; 5, 6) in at least one seat longitudinal position.
11. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** each guide pin (4, 5) is supported in the associated guiding slide (3, 4) along the vertical axis (z) perpendicular to the seat longitudinal direction (x).
12. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** each guiding pin (4, 5) is supported at the edge of the associated guiding slide (3, 6) along the horizontal transverse direction (y) perpendicular to the seat longitudinal direction (x).
13. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** the two guide elements (1, 2) are supported against one another at the edge of each guiding slide (3, 6) along the horizontal transverse direction (y) perpendicular to the seat longitudinal direction (x).
14. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** in each guiding slide (3, 6) there is a slider (8, 9) for supporting the relevant guide pin (4, 5) and/or the relevant other guide element (2, 1).
15. Longitudinal guiding element for a seat according to claim 14, **characterised in that** each slider (8, 9) has at least one support face (84, 94) for supporting the associated guiding pin (34, 5) in the vertical direction and at least one support face (82, 85; 91, 95) for supporting the relevant guiding pin (4, 5) and/or the relevant other guide element (2,1) in the horizontal direction (y) across the seat longitudinal direction (x).

16. Longitudinal guiding element for a seat according to claim 15, **characterised in that** the support faces (82, 84, 85; 91,94,95) enable a support in two oppositely aligned directions along the vertical axis (z) and a support in two oppositely aligned directions along the horizontal axis (y) perpendicular to the seat longitudinal direction (x).
17. Longitudinal guiding element for a seat according to one of claims 14 to 16, **characterised in that** the sliders (8,9) are made of plastics.
18. Longitudinal guiding element for a seat according to one of claims 14 to 17 **characterised in that**, the sliders (8; 9) each extend with at least one part of their slide regions (80, 90) in the seat longitudinal direction (x) only over a part of the extension of the relevant guiding slide (3,6).
19. Longitudinal guiding element for a seat according to claim 2, 15 and 18, **characterised in that** in at least one end position, more particularly an end position serving as the useful position of the two guide elements (1, 2) the guide pins (4,5) are not supported on the relevant slider (8,9) along the vertical axis (z).
20. Longitudinal guiding element for a seat according to claim 4 and 19, **characterised in that** the guiding pins (4, 5) in the first end position of the guide elements (1, 2) are not supported on the relevant slider (8, 9) along the vertical axis (z).
21. Longitudinal guiding element for a seat according to claim 19 or 20, **characterised in that** each guiding slide (3, 6) tapers in the end section (31, 62) which is free of the slide regions (80, 90) of the relevant slider (8, 9) in order to provide a continuous smooth transition between the slide regions (80, 90) and the relevant end section (31, 62) of the guiding slide (3, 6).

22. Longitudinal guiding element for a seat according to one of the preceding claims, **characterised in that** the guide elements (1, 2) and the guiding pins (4, 5) are made of metal.

23. Motor vehicle seat with a backrest and with a longitudinal guiding element for a seat according to one of the preceding claims.

24. Motor vehicle seat according to claim 23, **characterised in that** the backrest (R) can be folded from at least one upright position in which it serves to support the back of a vehicle occupant forwards in the direction of the seat underframe of the vehicle seat.

25. Motor vehicle seat according to claim 24 with a longitudinal guiding element for a seat according to claim 10, **characterised in that** the locking device (7) is associated with an unlocking element (70) and that the unlocking element (70) is only accessible for unlocking the locking device (7) when the backrest (R) is folded forwards.

26. Motor vehicle seat according to claim 24 or 25 with a longitudinal guiding element for the seat according to claim 6 and 10, **characterised in that** the backrest (R) is lockable in its forward-folded position and that the backrest (R) can only then be released for raising back up into its upright position when the longitudinal guiding element of the seat is located in the useful position.